

**Remarks**

This is a Response to the Official Action dated November 16, 2004.

Claims 15-37 are currently pending in the Application.

**Claim 15-37**

This response amends Claims 15, 20, 24 and 32 to clarify the scope of the invention. Specifically, Claim 15 has been amended to recite “wherein each set of driving timing sequences sequentially drives the M printing elements to provide random distances between centers of consecutive dot images formed by the printing element set of the printing head.” Claims 20 has been amended to recite “driving said printing element set in response to said N sets of driving timing sequences to form said dot images, wherein distances between centers of consecutive dot images formed by the printing element set of the printing head are random.” Claims 24 has been amended to recite “wherein, with the shifting of said reference timing sequence, a cyclic unevenness of said image is scattered and random distances between centers of consecutive dots printed by the at least one printing element of the printing head is provided.” Finally, Claim 32 has been amended to recite “driving said printing element with said driving timing sequence to form said image on said printing medium, wherein distances between centers of consecutive dot images formed by the at least one printing element of the printing head are random.”

**35 U.S.C. §102(b) Rejection**

Claims 15-16, 18-21, 23-26, 28-34 and 36-37 stand rejected under 35 U.S.C. §102(b) as being anticipated by Yano (U.S. Patent No. 5,914,731). The Examiner is reminded that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP 2131 quoting *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The Examiner is also reminded that “[the] identical invention must be shown in as complete detail as is contained in the ... claim.” MPEP

2131 quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The Applicants submit that the Examiner has not shown that Yano teaches each and every element as set forth in the amended claims.

### **Claim 15**

Applicant submits that the Examiner has not shown that Yano discloses, suggests or teaches, *inter alia*, at least the following features recited by Claim 15, as amended, of the present application:

“a driving device for, in response to said N sets of driving timing sequences, forming said dot images, wherein each set of driving timing sequences sequentially drives the M printing elements to provide random distances between centers of consecutive dot images formed by the printing element set of the printing head” (emphasis added)

The Examiner asserts that “[b]ecause the consecutive dot images are printed under random dot size control, the spaces (or boundary-to-boundary distances) between the consecutive dots are also randomly changed.” See page 3 of the Official Action.

Although the boundary-to-boundary distances between the consecutive dots disclosed by Yano may be random as asserted by the Examiner, the center-to-center distances of the consecutive dots disclosed by Yano are constant. Hence, Yano does not teach, disclose or suggest “printing elements to provide random distances between centers of consecutive dot images” as recited in amended Claim 15. Applicant submits that Claim 15 is patentable over Yano and should be allowed by the Examiner. Claims 16 and 18-19, at least based on their dependency on Claim 15, are also believed to be patentable over Yano.

### **Claim 20**

Applicant submits that the Examiner has not shown that Yano discloses, suggests or teaches, *inter alia*, at least the following features recited by Claim 20, as amended, of the present application:

“driving said printing element set in response to said N sets of driving timing sequences to form said dot images, wherein distances between centers of consecutive dot images formed by the printing element set of the printing head are random” (emphasis added)

The Applicant submits that, at least for the reasons stated above, the Examiner has not shown that Yano teaches, discloses or suggests “distances between centers of consecutive dot images formed by the printing element set of the printing head are random” as recited in amended Claim 20. Hence, Claim 20 is patentable over Yano and should be allowed by the Examiner. Claims 21 and 23, at least based on their dependency on Claim 20, are also believed to be patentable over Yano.

#### **Claim 24**

Applicant submits that the Examiner has not shown that Yano discloses, suggests or teaches, *inter alia*, at least the following features recited by Claim 24, as amended, of the present application:

“wherein, with the shifting of said reference timing sequence, a cyclic unevenness of said image is scattered and random distances between centers of consecutive dots printed by the at least one printing element of the printing head is provided” (emphasis added)

The Applicant submits that, at least for the reasons stated above, the Examiner has not shown that Yano teaches, discloses or suggests “random distances between centers of consecutive dots printed by the at least one printing element of the printing head is provided” as recited in amended Claim 24. Hence, Claim 24 is patentable over Yano and should be allowed by the Examiner. Claims 25-26 and 28-31, at least based on their dependency on Claim 24, are also believed to be patentable over Yano.

**Claim 32**

Applicant submits that the Examiner has not shown that Yano discloses, suggests or teaches, *inter alia*, at least the following features recited by Claim 24, as amended, of the present application:

“driving said printing element with said driving timing sequence to form said image on said printing medium, wherein distances between centers of consecutive dot images formed by the at least one printing element of the printing head are random” (emphasis added)

The Applicant submits that, at least for the reasons stated above, the Examiner has not shown that Yano teaches, discloses or suggests “distances between centers of consecutive dot images formed by the at least one printing element of the printing head are random” as recited in amended Claim 32. Hence, Claim 32 is patentable over Yano and should be allowed by the Examiner. Claims 33-34 and 36-37, at least based on their dependency on Claim 32, are also believed to be patentable over Yano.

**35 U.S.C. §103(a) Rejection**

Claims 17, 22, 27 and 35 stand rejected under 35 U.S.C. §103(a) as being obvious in view of Yano and further in view of Iwasaki (U.S. Patent No. 6,142,598).

Applicant submits Claims 17, 22, 27 and 35, at least based on their dependency on Claims 15, 20, 24 and 32, respectively, are believed to be patentable over Yano in view of Iwasaki.

**Conclusion**

In view of the above, reconsideration and allowance of all the claims are respectfully solicited.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

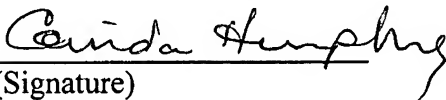
I hereby certify that this correspondence is being deposited with the United States Post Office with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on

February 14, 2005

(Date of Deposit)

Corinda Humphrey

(Name of Person Signing)



(Signature)

February 14, 2005

(Date)

Respectfully submitted,



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**Amendments to the Drawings**

The attached replacement sheet of a drawing includes changes to Fig. 10b, where the accurate shifted position of the dots is depicted. The replacement sheet is intended to replace Fig. 10b currently before the Examiner.

Attachment: Replacement Sheet